ABSTRACT OF THE DISCLOSURE

A method of reconstructing a regular 3D model by feature-line segmentation. The inventive method first inputs original 3D model data, builds 3D feature-lines, and converts the 3D feature-lines into 3D threads. The 3D threads have connection joints, connection lines, and loops. Next, the method determines sample numbers of the connection lines, adds or deletes the loops, and outputs the 3D threads. Finally, a regular triangular grid sample model is then produced according to the 3D threads and projected into the original 3D model to produce a reconstructed 3D model. The reconstructed 3D model can be adjusted if resolution requirements are still unsatisfied.